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Preface

The workshop "Random Numbers and Simulation", held at the Pfalz-Akademie in Lambrecht near Kaiserslautern from November 14th–18th, 1988, was organized by the Centre for Applied Mathematics, a common institution of the Technical University of Darmstadt and the University of Kaiserslautern, The Centre is sponsored by the Volkswagen Foundation and, as all its activities, this workshop was supported by the Volkswagen Foundation too.

As the Centre has its central task in building bridges between mathematical theory and practical applications, the workshop also tried to bring together "producers" and "users" of random numbers. Around two thirds of the papers included in this Special Issue are concerned with algorithms to generate (pseudo)random numbers, one third with applications mainly for the numerical solution of evolution equations and for general simulation methods. Linear and nonlinear congruential generators, reduction of discrepancy, algorithms for nonuniform distributions, computer implementation of generators with aspects of parallel processing may serve as examples from the producer side, particle methods for diffusion–convection, Boltzmann and semiconductor equations, and iterative simulation methods are typical user topics.

The workshop succeeded in bringing together many experts of the field and in creating a dialog between both groups.

The organizers of the workshop were Prof. Dr. J. Lehn, Centre for Applied Mathematics, Technical University Darmstadt and Prof. Dr. H. Neunzert, Centre for Applied Mathematics, University of Kaiserslautern.

J. LEHN and H. NEUNZERT
Guest Editors

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